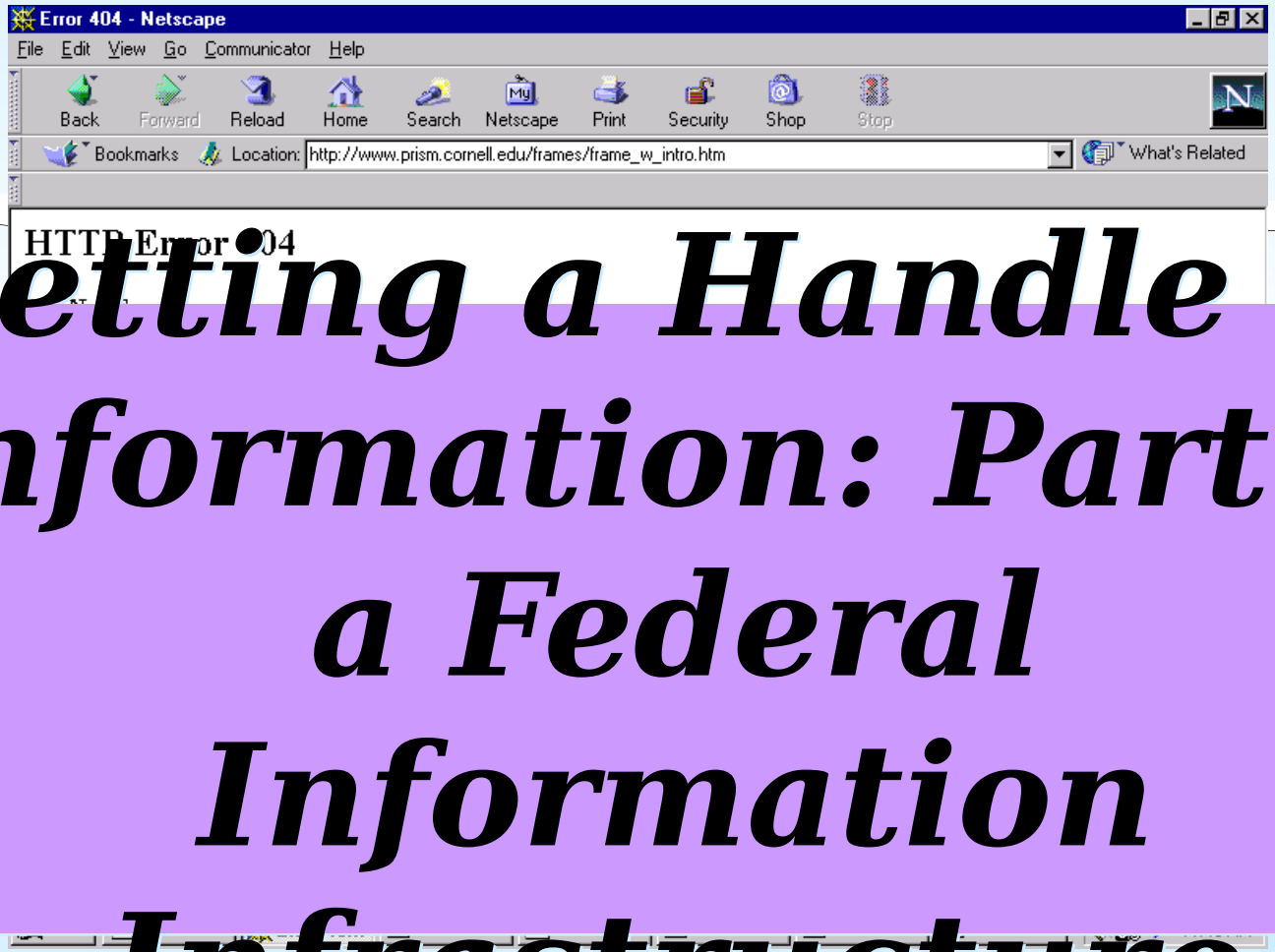
Error 404 - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Location: http://www.prism.cornell.edu/frames/frame_w_intro.htm
What's Related
HTTP Error 404

Getting a Handle on Information: Part of a Federal Information Infrastructure

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What I'm Going to Talk About

- **The Federal Information Landscape with a Focus on STI**
- **Federal Information Needs**
- **The Role of Persistent Identification and Handles**
- **DTIC's Handle Application**
- **Some Possible Non-Traditional Applications**

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Federal STI Landscape Requires Enhanced Digital Information Management

- **Multiple agencies**
- **Changing STI business models**
- **Information policies**
- **Information technologies**

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The Federal STI Landscape- Multiple Agencies

- CENDI includes 9 major science agencies accounting for > 90% of the $91.6B federal R&D budget
- Non-members of CENDI are also involved in science
- Work performed by contractors, grantees, cooperative agreements and NGO collaborators
- Agencies collaborate on projects
- Agency programs may be short-lived resulting in orphan objects
- Government is involved in basic, applied and regulatory-related science

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STI Diffusion Process
A Changing Business Model

PUBLISHED

Publish
er
- **Quality**
- Financial
- Document Supply
- Online Services

A&I
- **Quality**
- Finding Aids
  - **A&I**
  - DB Build

- Online Services

Database Provider
- DB Access

Library
- **Quality & Archive**
- Financial

Doc Supply Serv

Use
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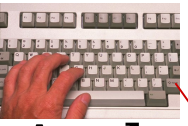

Auth
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Intellectual Property Services

CrossRef

Amazon.com, etc.

Free Full-text archive

dividual Web site

Google, etc.

Online Search Services
Acquire, Index, Search

Reposit
ory
- Store and **Archive**
- Control
- Document Supply
- A&I Services
- Online Services

GRAY

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Federal Information Landscape - Policy

- **Variety of policies and guidelines, with some conflicting**
- **Some policies apply to some agencies and others do not – the federal government is not a monolith**
- **Missions differ**
- **Requirements to share, collaborate, provide information to a variety of audiences, ensure data quality, and perform records retention and submission**

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Federal Information Landscape - IT

- **Different platforms, IT needs and approaches**
- **Move to make IT more consistent, but different needs will still persist**
- **Long-term preservation and access will require new instances of digital objects**
- **Routine server and domain name changes will continue to occur**

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Federal Information Needs Require Enhanced Information Management

- **E-Government**
- **President's Agenda**
- **Homeland Security**

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Federal Information Needs – E-Government

- Requires consistent, improved access by citizens
- More digital content
- Increased use of the Web for information dissemination and transactions
- Calls for increased partnerships and content sharing
- Improved information management for policy development and decision making

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Federal Information Needs – President's Agenda

- **Knowledge capture as government loses human capital**
- **Knowledge management requires improved, consistent information management practices**

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Federal Information Needs – Homeland Security

- **Integration of information across agencies**
- **Needs of a new Science Office in DHS**
- **Need to respond quickly to crises**

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The Role of Persistent Identifiers

- **Provides unique, global naming of a resource that can address the federal information landscape as well as the federal information needs**
- **Eliminates one element in the uncertainty of federal information management: *digital object location***

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The Handle System®

- **A distributed computer system which:**
  - **Names digital objects, stores the names and associated information**
  - **Consists of a single distributed global Handle service along with many local Handle services each of which may also be distributed**

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DTIC Handle Service: An Example

http://www.dtic.mil/dtic/handles/

- **The DTIC Handle Service assigns Handles to electronic resources**
  - **The current location of the resource is stored with each Handle. When the location changes, the Handle record is updated to reflect this change, and there is no broken link.**
  - **DTIC's Handle Service also facilitates the preservation and long term access to electronic resources, ensuring their availability over time and changing data formats.**

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Handle System®

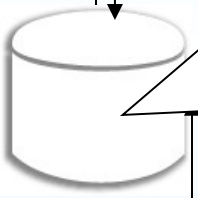
Oracle database:

1. to manage handles, affiliated URLs and metadata -

2. a central directory that will centrally manage DoD and DOD-related resources from local as well as remote locations.

Process Deposits Handles in DTIC LHS

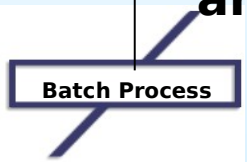
Handle Loading



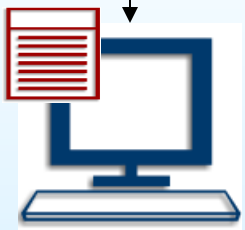
Oracle Database for Handle Storage and Administration and metadata

SQL Queries for Reports

System

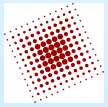


Web Form for Handle creation



Handle Query Using Web Browser

Corporation For National Research Initiatives



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Possible Non-Traditional Applications

Interoperability

- **Tracking conferences/meetings - conference proceedings have always been a mess for librarians to manage**
- **Correspondence tracking**
- **Departmental Regulatory Publications and Policy Papers - The current "Official" version would always be known plus earlier versions could be retained**
- **Electronics Records Management**

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Non-Traditional Applications, contd.

- **Managing agreements**
  - **Ownership can change**
  - **Can link to supplementary information**
- **Homeland Security/Federal Law Enforcement**

Give each terrorist/potential terrorist a Handle. A central database would be established with an entity designated to maintain/manage the database with subordinate Handles for finger prints, mug shots etc. Contributing agencies would then submit digital objects such as fingerprints, photos, videos, documents, etc. to this database.

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Non-Traditional Applications, contd.

- **Directories**
  - **Business**
    - **Name**
    - **Contact information**
    - **Service/Product**
  - **Cross agency Service/Products**
    - **Science.gov Interoperability**
    - **CSRS-SSA-Medicare-TSP-VA**
- **Order processing -** Using a Handle to find out all relevant information about an order

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Non-Traditional Applications, contd.

Include Handles as part of traditional IT software; e.g. for tracking:

- **Customer Relationship Management (CRM)**
- **Authorizations**
- **Collaboration**
- **Can Handles be used efficiently for network management?**

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Conclusion

Prediction is very difficult, especially about the future. ***Niels Bohr (1885 - 1962)***

but

The best way to predict the future is to invent it. ***Alan Kay***

Handles are part of the future and the future is now!!